

Claims

- [1] An isolated plant sucrose-inducible promoter sequence, comprising a DNA nucleotide sequence of a bp -1 to -1,908 region, relative to a transcription initiation site of SEQ K) NO: 1.
- [2] The isolated plant sucrose-inducible promoter sequence according to claim 1, wherein the said promoter sequence is derived from an *ibAGPI* gene of sweetpotato ADP-glucose pyrophosphorylase.
- [3] An isolated 5' untranslated region of a sweetpotato ADP-glucose pyrophosphorylase gene, comprising a nucleotide sequence of a bp +1 to +68 region, relative to a transcription initiation site of SEQ ID NO: 1.
- [4] A sucrose-inducible binary vector for plant transformation, comprising the plant sucrose-inducible promoter sequence of claim 1 and the 5' untranslated region of claim 3.
- [5] A sucrose-inducible transient expression vector for plants, comprising the plant sucrose-inducible promoter sequence of claim 1 and the 5' untranslated region of claim 3.
- [6] An *E. coli* carrying the sucrose-inducible binary vector for plant transformation of claim 4.
- [7] An *E. coli* carrying the transient expression vector of claim 5.
- [8] A transgenic plant transformed with a binary vector comprising the plant sucrose-inducible promoter sequence of claim 1 and the 5' untranslated region of claim 3.
- [9] PCR primers of SEQ ID NOS: 2 and 3, suitable for amplifying the DNA fragment comprising the sequence of SEQ ID NO: 1.
- [10] PCR primers of SEQ ID NOS: 4 and 5, suitable for amplifying the DNA fragment comprising the sequence of SEQ ID NO: 1.